

OREGON TUALATIN VALLEY AMATEUR RADIO CLUB



Next Meeting June 8

Lorna Campbell, KA7RFD, Editor

Field Day 1988 June 25-26-27 Champoeg State Park

Dec, KA7NPN

Field Day is traditional and is at the heart of what Amateur Radio is all about and OTVARC is no exception. It allows the opportunity to introduce Hams and non Hams to the technical and operational aspects of Amateur Radio. From the technical side, Amateur Radio Operators should be prepared to assist in case of emergency situations. Several present cases such as the Mexico City earthquake and the 1987 Southern Oregon fires pressed into operation many thousand hours of operating time to assist in communicating welfare and Red Cross messages. Many of the stations in Mexico had to rely on emergency power and portable antennas.

How do you prepare for such situations? Well, one way is to practice placing stations and antennas into operation in the field and experience first hand many of the situations that may be needed in the future. OTVARC for years has done this well while making it a fun experience. While following the ARRL Field Day rules, one will find as many variations on how to approach Field Day as there are hams.

First comes the actual site preparation which can take place up to 24 hours in advance of the official contest starting time. Since the contest starting time is 11AM (1800 UTC) on Saturday, June 25, this means we can start putting the stations together at 11AM (1800 UTC) on Friday, June 24th. We take advantage of the Friday starting time and start raising towers and putting up antennas. OTVARC has accumulated and stores all the necessary wire antennas, towers, beams and hardware to support up to four independent high frequency stations as a commitment to emergency preparedness. We use Field Day as a focus to

inspect and exercise equipment and "personnel".

1987 was the first year we used Champoeg Park for Field Day. The group overnight area at the south east end of the park can accommodate four stations without the risk of R.F. interference. Since we are located in a group area, we can minimize our exposure to any safety risks, associated towers and the curious public....but it is also an opportunity to be ambassadors of good will and explain Amateur Radio's roll as well as inviting them to look in on our "Play Day" in June.



Set Up: Field Day is a perfect opportunity to be involved in setting up towers and antennas in a supervised setting. Starting time is 12 Noon Friday, June 24th. You may bring simple tools such as sockets and open end wrenches (7/16, 1/2 & 5/8) and a medium screwdriver. Onsite teams will be designated to assemble each station site...some are more complex than others. For instance the 20 meter site does require a qualified "Bull Horn Operator".

Continued Next Page

General Equipment: We operate the Field Day sites under emergency power, which means nothing at each of the operating sites can connect to the A.C. mains. We use 12 volt batteries to operate the transmitting equipment and gas lanterns for heat and light. Because we operate under emergency power, we get more points per contact. For general Field Day rules, please consult the May issue of QST. We also have an area restraint in which all sites must be contained within a 1,000 foot circle.

Trailer Site: The trailer already has a 30 foot crankup tower attached. We will assemble a 3 El. Tri-band beam for 15 and 10 meter operation. Adjacent trees will support a 40 meter dipole. Operation will be inside the trailer. This site will be used for SSB on 40-15-10 meter bands.

20 Meter Site: The tower is a two section 40 foot crankup...very skinny. We will assemble a 4 El. monoband beam and place it in position using an unique rope arrangement. Adjacent trees will support a 80 meter dipole. Operation will be on a picnic table under a tree or tent depending on the weather. The site is used for SSB 80-20 meter bands.

CW Trailer Site: A trailer attached push up mast will be used for supporting a light weight 3 El. Tri-band beam for 20-15-10 meters. Two adjacent trees will support a 80 and 40 meter dipole antenna. Operation will be inside or outside under an awning. This is operator's choice for operating speed...if you can't operate without your favorite key...bring it. We will provide Vibroplex, Iambic, Memory and straight keys.



Ray, K7VDQ operates from the CW trailer, F/D 86.

Novice/Technician Site: A 35 foot two section ladder will be used for supporting a 3 El. 10 meter beam. An adjacent vertical will be used for 80-40-15 meter bands. Operation will be from a picnic table and tent if necessary. CW/SSB on 10 meters.

Operation: Transmitting officially begins at 11AM (1800 UTC) on Saturday, June 25 and continues non stop until Sunday at 11AM. Anyone



may operate the stations as long as a licensed operator is present... it's great fun for the inexperienced to start logging then take over the controls. Field Day contesting works best with two people working the station in segments of one to two hours. One person

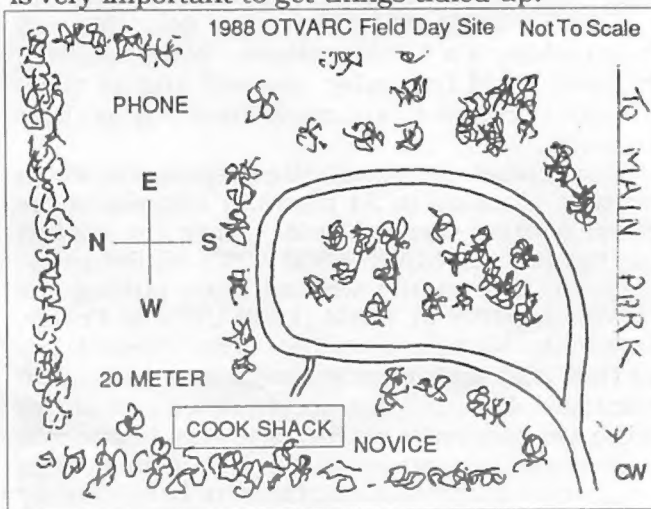


does the logging while the other does the operating. If you are new at this...just drop in with a group and pick up a pencil and start copying to get the hang of things. All exchanges are short...Call sign—Signal report—Location—. If the weather is cold, don't forget the coat.

Camping Facility: The group camp area comes with a central cook house to accommodate about 60 people at one sitting. The Social Committee will give details of arrangements for meals in a separate article in this issue. We encourage you to participate in the fun! Adjacent to the cook house are "His and Hers" facilities which include a shower when things are feeling really rough. When you come into the park there will be a one dollar per car charge for day use. If you plan on camping in the group area, OTVARC will collect a \$2.50/night fee per family. OTVARC then pays the State for the facility. Those who might come early and camp in the normal camp area, the fee collected by the park attendant is \$9.00 per night.

Other Activities: Champoeg Park has many bike paths, nature trails as well as areas of historical interest. At the group area you might even find a friendly game of horse shoes. Happy Old Jack, KA7HOJ, might even have his creek sized yacht on the Willamette.

Tear Down: At 11AM on Sunday the site is disassembled...tear down takes about an hour but is very important to get things tidied up.



Lorna's Lookout

Lorna, KA7RFD

How do you like our new format? We have Ken Gilbert stepping forward to serve as Assistant Editor and bringing with him some excellent ideas to make our Newsletter even better. I always thought we produced a first-class Newsletter, but now it's going to be even more "first classer". Ken is using a MacIntosh Computer with a laser printer. He's also using a scanner which gives us the capability of reproducing cartoons and we'll start again using graphics for your enjoyment. Nothing definite yet, but with a little twisting of the arm, I believe Ken will take over as our Editor at the end of the year. Right now he's learning the ropes and getting to know some members of the club.

Ken has passed his Extra Class examination and recently got his first call, KF7JR (Advanced). How did this happen? Well, although he has been interested in ham radio for the past ten years, he started working for his Novice Licence in February this year and passed his Extra on May 7. Knowing that an Extra Class Licensee was just as nervous making his first contact on 2-Meters makes me feel better.

He's employed in the family business of Pacific Hardware and for hobbies enjoys skiing, designing and building anything electrical and, of course, computers. (By the way girls, he's single and drives a Corvette.) Please give him a great big welcome and a great big thank you for volunteering for this job and be sure to read his first article entitled "The Extra Class Novice" in this issue.

Just because there are two of us now, doesn't mean we don't want your articles. On the contrary, there is now the possibility of putting out a 12-page edition each time. However, to do that we must increase our revenue. For the sum of \$4.00 per month we'd be more than happy to insert a business card sized advertisement for any club member. Or how about this not to be refused special offer of \$20.00 for an ad in the Newsletter for the next six months (July-December). Remember that our Newsletter goes to every local Radio Club and library as well as our own club members and see how great the ads now look with Ken's new artwork.

Our dues are still only \$10.00 per year, but \$3.00 of that immediately is taken by the cost of mailing the Newsletter to you. Then there's printing, club insurance, some expense for events like Field Day, so the money soon disappears. I'm still looking for an Advertising Manager to make contact with local computer and software stores, the mail order equipment stores, etc. so we can even more

offset the cost of producing the Newsletter. Anyone willing to step forward?

Our July Newsletter will be an abbreviated version, which Ken has willingly accepted to undertake. I'll miss seeing you all at the next meeting and if I don't get back in time for Field Day, have fun and make lots of contacts.

P.S. We've received so many good articles for this issue that we have to hold some over until July. Keep up the good work and thanks for your input.

Volunteers Needed For Newsletter Articles

Is there some one who could please write a wrap-up article on Field Day '88 for the August issue of the Newsletter? Cut-off date for that issue would be July 20 so you'd have nearly a month to think about it. The July issue should be in the bag prior to Field Day. Anyone who has particularly good experiences at Field Day, contesting or just having fun, would like an article on that, too. Last year after F/D we had a really good article on duping.

And has anyone been working AMSAT Phase III C? Would sure like to have an article on what sort of contacts you've made, any operating suggestions, etc. in language we can all understand.

Thanks a lot - I know someone will help out.

Tupperware Fund Raiser

\$161.00 was raised for the club treasury from the sale of Tupperware. Our thanks go to Bobbi Antons for the many hours she donated working without commission to raise this amount.

Airline Ticket For Paul, WB6SHR

Thanks to everyone's generous donations of money or gear for the very successful special raffle, sufficient money has been raised to get Paul a ticket up to the National Convention in September. I'd like to say a great big thank you to Geno, KA7KBH for assisting in making this possible.

Dress Code Reminder

Now that warmer weather is hopefully approaching, a reminder that shorts are not acceptable attire for either Ladies or Gentlemen at the Beaverton Elks Lodge. As guests of BPOE please adhere to their dress code policy. Thanks.

Packet Radio

Bren, KM7R, Assistant Section Manager

In the last episode of "How to with Packet Radio" we discussed the basic premise behind Packet, some simple terminology and definitions. We are ready to progress a bit further.

The mode of packet can be as much or as little as you wish to make it. Do you just want to be able to have a simple message system set up to receive those messages from other amateur operators or do you really want to get your feet wet in traffic handling on Packet? It is up to you which avenue you choose.

The majority of my Packeting is done in the area of traffic handling and downloading computer programs. The WA7ARI mailbox in Salem accessible via KM7R-1 (SLE alias) on 144.99 has explicit instructions what you need to do and what is available and how to download the information to your computer. If you cannot access SLE node on 144.97 you can connect to PDX (C PDX) on 144.99, once receiving the connected to message send "C SLE" which will use the path between the site for W7XI-1 or PDX and KM7R-1 or SLE presently existing on 220.95 Mhz. There is a solid linking system on 220.95 between the nodes in Oregon that are presently up and active.

I want to go into the operation of store and forward mailboxes so as to get more people interested in traffic handling on Packet.

WA7ARI mailbox is a store and forward system allowing you to pull off mail and traffic from it as well as put traffic on it for another destination. It has forwarding tables set up that will once an hour allow the system to automatically forward your traffic. I will tell you a bit more about this particular mailbox and any of the present on line systems that store and forward messages which work off the same basic principle.

You are connected to the mailbox...

If you have never connected to this mailbox it will ask you for your name and from then on when you connect it will say "Hello Bren". To list the mail headers send L (upper or lower case no matter). You will then receive a list of messages by message number, title, etc. To read the last 10 mail message headers send LL 10 or LL 20, which will send you the mail headers for that number specifically.

Now you see there is a message #465 for ALL from KM7R entitled "Traffic Handling". To read that message you need only send R 465 and it will send that message to you.

Should you connect to a mailbox and see the prompt "You have unread mail" all you need to send is RM or read mine. It will then send you all your messages.

Once you have taken your message off the system and checked it for accuracy you can kill the message if it is for you by sending KM or kill mine. If you are killing a message not directed to just one person specifically, which we will go into further in a moment, you just need to send K 465 (K and the message number).

If you want to send traffic or leave a message for someone on a specific mailbox you can do it two ways. If you want it to be private you send SP KM7R or not private, just S KM7R. SP means that you must have the call of KM7R to download or kill the message off the system. You will then get a prompt off the mailbox asking you for the title of the message. Once you have given it one and sent that message off, you will then get back a prompt telling you to type in the text and on the last line send a Control Z or /EX to close the file. To check your message you can send L 465 or whatever message number the mailbox assigned to your message.

If you know what particular mailbox a ham checks into then to send traffic to him or her you would say S KM7R@WA7ARI...the procedure from there would be the same. The mailbox you are connected to would forward that message by its routing table to WA7ARI mailbox and when your station checks for mail ...Eureka...there it is.@ In the next article we will go into some serious traffic handling, form, etc. and tying Packet traffic handling into the NTS network. The way of the future. Til then 73, Bren Sytsma, KM7R@WA7ARI.

FCC VE TESTING

Northwest Amateur Radio Council

Amateur Radio License Examination

Technician Through Extra

Portland Community College

Sylvania Campus, College Center Building

Cedar Room (Adj. to Cafeteria)

12000 S.W. 49th., Portland

EXAMS HELD FIRST SATURDAY OF EACH MONTH BEGINNING AT 10:00AM

1. Bring Original license + photocopy and original Certificate if you have one. Also bring ID with picture.
2. \$4.55 Check or Money Order payable to ARRL/VEC.
3. Arrive at 9:30AM.

For more info call Randy, WN7W, 649-5066

Field Day Revisited

AI, WB7SIC

Lorna asked me to write up a history of past OTVARC Field Days, so here we are. Can't think of anything more boring than to hear of past events. What is up and coming is more fun. ESPECIALLY Field Day! Well, you know, now that I think of it, a few words about the past could help someone get a better viewpoint and maybe, just maybe, get some added participation this June.

Groups, as well as individuals, seem to have differing views on what Field Day is all about and, of course, this is the reason we see such a diversity of operating styles among stations. OTVARC had always made an effort to win so if you are the contest type, go for it!

Some believe in NO preparation. When the time comes, grab pieces and parts, head for the woods and get on the air. That's called training, by some. Others call it dumb. Forget a critical part and so long oolong! OTVARC has built a fine tuned operation for setup with the idea that if we ever really did have a disaster, Heaven forbid, enough people would still be around to furnish communications and in the shortest time possible. If you are hip on station setup and antenna work, you have it made.

Our club has always leaned toward family involvement and Field Day is no exception. A place in the sun (or rain) for the non-ham has been very important to get the troops out and operating. Fun and games for anyone not interested in electrocuting themselves. That's why we have campfires, weiner roasts, spaghetti feeds, bingo and more. If the XYL, (oops) I got chewed a bunch when I was Newsletter Editor for using XYL so let's do it this way...If the old lady wants to go to the beach on Field Day weekend, you can guess where the old man will be. That's why we promote fun and games for all!



Janet, WB7FJC & Deborah, N7KAE Operate 10M Novice

The first OTVARC F/D was in 1979 and a whopping 35 bodies showed up and did we ever have fun. Not too good in the scoring but, of course, it does help to strip off the insulation on the vertical radials before attaching same. 1980 was a sellout if you count people as a sign of success. Around 125 souls were there, the weather was great and we had a resident barber on site to do her thing which included a few perms. Try that for diverse operating! 1981 saw OVER 150 members and family at the Maiken farm and it was probably our best ever outing. A whole Newsletter could be filled with the memories from that one.



Dinner Time F/D 86

Our 1982 through 1985 Field Days were pretty much the same. All at the Maiken farm out near Vernonia but the trouble was, attendance was dwindling a little more each year. It was thought that a change of scenery might liven things up a bit so a decision was made to try Shampooley Park. (Yeah, I know, the spelling. Too lazy to get a map and do it right but you get the idea.) Anyway, some members were bent and some were willing to give it a go. Turned out to be a real nifty place to operate what with lots of room for everything and everybody. Super neat for camping and real restrooms with no knot holes in the walls.

As you can tell from other items in this Newsletter, we are going to the same site this month. No matter where F/D is staged, the fun, camaraderie and all of the other things that make up memories are there for anyone who wants to make it happen. I wouldn't trade my memories of our outings for anything. Even if past events ARE boring. Hope to CU there!

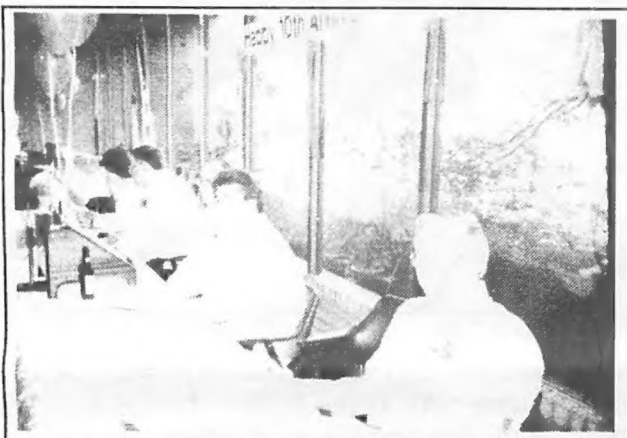
Project Night

Project night on hold at the moment. Due to poor attendance over the Summer months last year, Project Night will not necessarily be scheduled every month. Terry, WB7CHK will contact everyone personally, when the next meeting is due.

Tenth Anniversary Celebrated

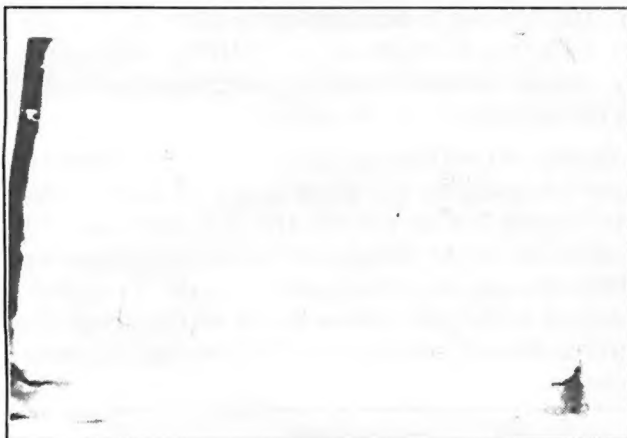
Lorna, KA7RFD

A record breaking 138 members and guests were in attendance May 11 when we celebrated the tenth anniversary of the formation of OTVARC. Charter members present included Bob, WF7Q; Al, WB7SIC; Janet, WB7FJC and Wes, K7WWG. We were also pleased to welcome past Presidents Bob, WF7Q; Al, WB7SIC; Greg, W7AGQ; Geno, KA7KBH and Dave Parker, W7LJN who rejoined the club. The member traveling the farthest distance, Skip Leonard, KC5BO from Houston, Texas. The first time he's attended a meeting in four and a half years.



W7LJF, K7JF, K7RXV, and W7AGQ at the anniversary Party.

Highlight of the evening was a down memory lane slide show of past Field Days, Christmas parties and campouts put together by Stan, W7NI and emceed by Al, WB7SIC.



The OTVARC Mascot on one of the birthday cakes

The Elks provided us with an excellent buffet and thank yous must be given to Pat, KA7UFG; Marvel, KA7TZZ and Bobbi for the many hours they put in making this party such a success and Joan, KA7VXC for making those delicious Birthday cakes.

Words From The President

Roger, K7RXV

If you missed the Anniversary Party at the last Club meeting, you missed a good time and a job well done by the Social Committee.

The next major club activity is Field Day. This will be at Champoege Park. The Social Committee and Technical Committee have their part of the preparations well under way. There will be three stations plus the Novice station this year. This is no active Contest Committee at this time and I have been calling people to get someone to be responsible for this part of Field Day this year. I have a large list of people who have said no!. Also requests have been made at the Club meeting with no volunteer for the main stations. A couple of people have offered to help with the Novice station.

Since there has been no input from the Club, I have obtained permission to use Randy Cobb's new call, WN7W for the main stations. The Novice call will be determined by the volunteers for that station.

Unless someone comes forward for the Contest Committee this will be the last contest event that the Club participates in. Remember this is YOUR CLUB not the Club and unless you take the responsibility for doing the required work to put on Club events those events WILL NOT HAPPEN. If this apathy doesn't change, don't complain about the lack of activities. The OTVARC Board can only support the activities you are willing to support.

CLASSIFIED

HYGAIN EXPLORER 14-4 EL. BEAM 10-15-20-40 Meters. Stainless Steel Hardware. Never driven over 600 Watts! \$175 Rotor \$75. Jeff, K7JF 297-7965

FOR SALE Complete Commodore C128 System. Excellent condition. All cables, manuals, original cartons and lots of software. Call John Conley, K7DMM at 242-8346 for details. (24-hour recording service in use, so leave message).

FREE SOFTWARE FOR FT757GX If you have a YAESU FT757GX and would like to control it with an APPLE computer, here's your chance. It will control all functions including fine tuning and loads all memories from a stored file. You need an RS232 interface in your APPLE. If interested call Ralph Karls, WB7VGS 649-5845

WANTED Kenwood TR 740A Two Meter FM Transceiver. Need original rig without modification. Will pay cash. Call Bob, K6RH at 648-1248.

June Club Program

John, K7SHC

The June program will focus on Field Day. Come see and hear about the adventures in emergency preparedness of the Oregon Triangulation Point Amateur Radio Group (OTPARG) presented by John, NB7W. Learn how it is to operate Field Day from a remote coastal site at the end of a one-track road with no running water, no electricity, no buildings nor other facilities. (See "Field Day at Triangulation Point" OTVARC Newsletter, September, 1987, Page 2.)

Then, Dee, KA7NPN, will present a slide show about last year's OTVARC Field Day campout at Champoege State Park. Come see the fun had by the Field Day operators and their families. If you were not able to come last year, this will be your chance to get all the details about the Champoege layout and facilities.

Finally, if you have participated in Field Day elsewhere, you are invited to share your slides and stories with the club. Please call me at 641-3031 before the club meeting to arrange your presentation.

Social Committee Report On Field Day

Bobbi Antons

"Where two or more are gathered, they shall eat." Quote from the OTVARC Travelers code of behavior. And eat we will at the 1988 Field Day.

FRIDAY NIGHT

Hot Dog and potato chip feed. No Charge.

SATURDAY NIGHT

Spaghetti feed with tossed salad and garlic bread. \$2.50 Adults, \$1.50 Kids 6-12, Kids under 6 free.

SUNDAY BREAKFAST

Hearty traditional. \$2.50 Adults, \$1.50 Kids 6-12, Kids under 6 free.

Please bring your own utensils.

Kool-Aid and coffee available all day at no charge.

Beer available at \$3.00 per day or 25¢ per cup.

There is a \$1.00 fee to get into the park each day.

1988 National Convention Exhibitors

Accurate Engraving
Alinco
Antenna Systems
C-COMM
CQ Magazine
Curley's Engraving
ETO Alpha Linears
Greenlight Software
Hustler Antennas
Hal Communications
Hats for Hams
Heron Press
Kantronics
Larsen Electronics
Mirage/KLM
MFJ
Nye Viking
Orion Hi-Tech
QCWA
RF Concepts
Tektronix
ULC Discount
YAESU

Advanced Computer Controls
Amateur Radio School
ARRL
Charles Simmons
Comer Communications
EPO Software
Falcon Communications
Glen Martin Engineering
Gordon West Radio School
Ham Radio Magazine
Heath Zenith
ICOM America
Kenwood USA
Loraine McCarthy
Motron Electronics
Nuts and Volts Magazine
Portland Radio Supply
R and J Enterprises
Rivendell Electronics
Smiley Antenna
The DX Bulletin
Western Washington ATS
YLRL

AEA
AMSAT
ARRL Insurance
Expert-Q
Encomm
Grand Systems
Mr. Nicad
Reno Radio
H. Stewart Design
Handi-Hams
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RF Parts
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For Over 30 Years**

Dear OTVARC Club Members

Paul, WB6SHR

Thank you very much for the excellent plaque. I was surprised and moved when I opened the package up and saw it. The award really means a lot to me and I will always keep it where I can see it. I really appreciate your thoughtfulness. Thank you again.

I hope you had a good turn out at the Anniversary Party. I really missed being there for the event. Hope you had a good time.

The only thing I have on the air yet down here is my 2 meter handheld in the truck. Hopefully I will get my other 2 meter rig on the air soon. Let me tell you, I sure miss my HF station and all of you. The job search continues. Good paying jobs in my field are hard to find but there are a few opportunities beginning to show up on the horizon. I will let you know as soon as something breaks loose.

Well folks, that's all the news. Keep those newsletters coming. See you in September. Paul, WB6SHR

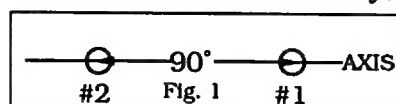
Antenna Radiation Patterns

Part II

Floyd Passmore W7KLE

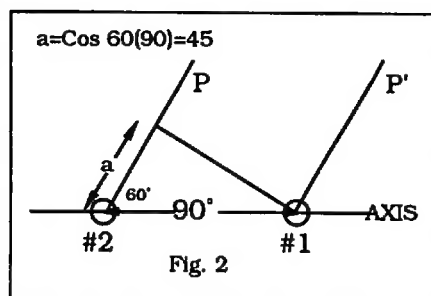
In a Previous Item on this subject, an easy method of calculating horizontal relative radiation patterns for an array consisting of two vertical antenna elements at different spacings and with certain current phase relationship was described. Here is the reasoning behind the method:

Fig. 1 shows a top view of the antennas with a spacing of 90° or $1/4$ wavelength. If it is considered that the radiation is being received at some point in line with the axis of the array, it is obvious that the



radiation from one antenna will lag behind that of the other by 90° .

Fig. 2 shows the radiation being directed to a point which is 60° from the axis of the array. Although the lines of propagation, P & P', are not really parallel, at any appreciable distance from the array, they may be considered so for practical purposes. It is now apparent that the distance from

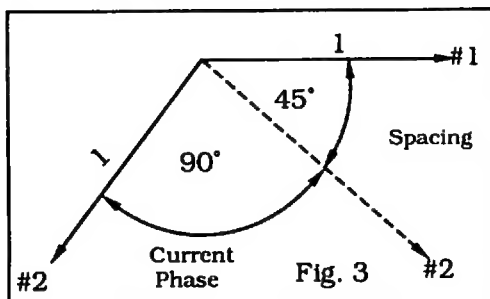


each antenna to the point of reception is not exactly 90° different but something less. If a line perpendicular to P is dropped to antenna #1, there is then formed

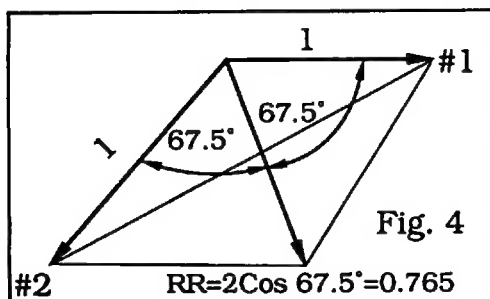
an upside-down right triangle the hypotenuse of which is 90° in length. Since the cosine of the right triangle, whose angle is 60° , is the side "a" divided by the hypotenuse, then the length of the side "a" is the cosine of 60° times the hypotenuse or $\text{Cos } 60(90)=45^\circ$. This is now the phase lag of the radiation of #2 antenna behind that of #1, due to relative position.

Now, consider Fig. 3, where vectors are shown for the two antennas. Since we are calculating relative radiation, we may use a value of "1" for each antenna. The dashed vector shows the position (lag) of antenna #2, due to spacing only. Then, if we assume a current phase difference of 90° , we will simply advance vector #2 90° more in the same direction. This, then, makes a total difference of 135° .

In Fig. 4 it is shown that the vector sum of #1 & #2 is the shorter vector half way between or 67.5°



from either of the other vectors. If a line is drawn from the points of vectors #1 & #2, four identical right triangles are formed. Their bases, or adjacent



sides, are $\frac{1}{2}$ the length of vector RR. The adjacent sides of these angles is determined by multiplying the cosine of the (67.5°) angle by the hypotenuse. Since the value of the hypotenuse, in this case, is "1", the length of the adjacent side of the angle is equal to the value of its cosine and the total length of the relative radiation vector, RR, is $\cos 67.5^\circ$ times 2 or 0.765. This is the relative radiation from the array at an angle of 60° from its axis. Reviewing the calculator solution:

60 Cos X 90° = +90 = ÷ 2 = Cos X 2 = 0.765
Here is what happens when pushing
the buttons on the calculator

HEARD AROUND THE CLUB

Lorna, KA7RFD

Larry, K7YBZ not doing too well after back surgery and will probably have to go back and have more surgery. Tell 'em to get it right this time, Larry. Our thoughts are with you.

Wes, K7WWG a new job with Controltek in Beaverton.

Wedding bells June 18 for Mark, N7CRQ and Val, N7JWA and August 13 for Ron, K7TGD and Rose. Incidentally, both couples will be married by Greg, W7AGQ. Congratulations and good wishes.

And congratulations to Sandie, N7JXW and John, KB7BDY who recently announced their engagement.

The Extra Class Novice

Ken Gilbert, KF7JR

What's an Extra Class Novice? That's going to be me. I have wanted to be a ham for over 10 years but could never copy 5 wpm. In February I began Gordon West's, WB6NOA, 21 Day Novice Voice Class course. The theory posed no problem and I decided to attempt elements 2, 3A and 3B along with the unachievable 1A. In March I flunked the 5 wpm and passed the rest. That really fired me up and I resolved to conquer the 13 wpm along with 4A in April.

Morning noon and night, countless hours, over and over, I was going to pass. Then one morning something amazing occurred, sounds became letters and flowed from my pencil. There was hope, I might pass!!!

Test day arrives and I resolve that if I fail I will be back, there will be no quitting. After missing 4, Randy Cobb, KA7HJT, spoke the words I'll forever remember "There is a lot of good copy here. Take a look at this again". The dream was a reality I would soon be an Advanced Class ham and Randy will forever have a special place in my memories.

My sights were now set on Extra Class. Again I resolve that if I fail I will be back till I pass. V's and 4's, B's and 6's, the impossible S's, H's, and 5's begin to sound differently. I begin copying words and my confidence inches forward.

May 7, test day, I'm ready. There is a long wait while more people decide to take the test. I haven't been this tense since I had to get up in front of a group and talk. The test message goes by and I get half of it. VVV VVV, I nailed the call signs but then I'm copying as it comes, no word recognition. I only get about half correct and in the middle of the test I am convinced the examiners made a mistake and gave us the test message over again, I keep copying.

Its over and scramble time. What kind of QSO is this? This guy's on vacation in Florida and been traveling how many hours and miles looking for what, a campground? Gordon West never prepared me for this. Well this is all history and the impossible is now a reality, **I PASSED!!!**

This column is going to be about my adventures in ham radio. My anxieties and fears, my first QSO's, my mistakes and most of all my love of this hobby. I will be as nervous for those first QSO's as I was during that 1C test and maybe writing about them will help me and others to enjoy this hobby better. Think of me as a novice when we meet and someday I will ultimately become an Extra Class ham.

DX For Beginners And Others

Greg, W7AGQ

I got a bit carried away with last month's column on antennas. Not too many of us are going to put up a monster 3 element 80 meter beam like the one at OH1RY. Also most hams make do with some kind of tri-band beam (covering 20-15 & 10).

I did mention the large KLM KT-34A and 34XA. This is a large beam (I think the XA has a 36 foot boom) and covers all three bands with near mono-band performance (or so goes the advertisements). Most other tri-band beams use traps. These are particular combinations of coils and capacitors that do different things at different frequencies.

One trapped antenna with which I am familiar may provide a simple example. About 2/3rds the way out, inserted in each half of each element, you will find a plastic-type case with a coil-capacitor combination inside. The total element lengths are about right for 15 meters but too short for 20 and too long for 10.

A 15 meter signal uses the elements on each side of the trap and virtually ignores the trap...acts as if it were not there. On 10 meters, however, the trap stops the signal right there and nothing goes beyond it. As it turns out this length inside of the traps is just right for our 28-29 MHz signal. On 20 we use everything. The elements on each side of the traps plus the wire wound around the coil form are just enough for 20 meters.

A tri-band beam features automatic band switching and relative small size. You can put it on a lighter duty tower and turn it with smaller hardware than if you had separate full sized antennas. It is obviously simple to operate and less likely to come down than its full size counterpart. With all this, you may wonder why anyone would bother with a tower or more full of separate yagis.

There are losses present in a tri-band beam. Those using traps reduce your signal a bit and linear loaded tri-banders don't operate quite as efficiently with their elements folded back. In addition, the spacing between elements has got to be a compromise. The right distance for 20 is way too long for 10. That's one of the reasons some of the larger beams throw in a full size 10 or 15 meter element or two. It's a little more efficient and helps out with the spacing compromise. Almost everyone starts out with a tri-band and a few move later to full size arrays. Interest, XYL's or XOM's tolerance, neighbors and money all play a big part in the decision (if you're a true blue DXer, maybe money is the only limitation). I have worked a couple hundred countries the last few years of casual operation with a small, trapped tri-band and 100 watts (it probably helped that the antenna is at 101 feet). On the other hand, I hope to have large mono banders up this summer.

Have fun on the bands. They are open even to midnight or so. You might even hear me on (but if you happen across me on CW, ignore it). I'm still getting used to this CW mode of operation and my keyer and I'm trying to improve my speed.

73 (and 88 where appropriate).

Net Operation

Randy, KZ7T

Much of Oregon is still in a drought situation and our hope is that we don't have the disastrous forest fires we experienced last year. Perhaps it is timely that we review our operating procedures. This two-part article extrated from The Emergency Coordinator's Handbook precedes an article we will have from Dale, W7FBP on Traffic Handling in the August issue.

The following instructions apply to regular nets, drills and actual emergency operations:

A. Once you have checked into the net, be sure to monitor the operation as continuously as possible. Often, vital information is given during the early stages of an operation. In addition, when the Net Control Station (NCS) is ready to give assignments or need information, you must be ready to respond. If, at any time during the operation, you must leave the net for any reason, inform Net Control of how long you expect to be out of the net and notify the NCS when you are back on frequency.

B. After you have received your assignment, proceed to that location as quickly and safely as possible. Maintain contact with the NCS while enroute.

C. Identification.

1. Once operations have commenced, the NCS is required to satisfy FCC station identification requirements. He shall do so by identifying the station at least once every 10 minutes in accordance with FCC regulations.

2. When calling to be recognized by Net Control, it is not necessary to give the Net Control Station callsign. In a directed Net, all stations will communicate only with Net Control unless directed to do otherwise. Therefore, transmitting your callsign and nothing else means that you are requesting to be recognized by the NCS. If you have traffic for Net Control or for another station on the net, your callsign plus the word "traffic" is sufficient to make your needs known. Net Control will acknowledge as soon as possible. If you are not recognized within a reasonable time, repeat your call. If you have reason to believe that you are not being heard by the NCS, then a longer call may be appropriate or you may request a relay.

3. If your traffic carries an "Emergency"

precedence, then your call followed by the words "Emergency traffic" is appropriate.

4. Further identifying by stations on the net is not necessary unless Net Control needs to know who is transmitting.

5. The use of "tactical" callsigns may be helpful in some situations. Such callsigns may be as simple as unit numbers, as detailed as your location, or a combination of both. Tactical callsigns are only to be used if assigned by the NCS and will thereafter be used for the duration of the operation. The use of tactical callsigns can greatly increase net efficiency, but does not obviate the need to meet FCC identification requirements.

D. Care should be taken to listen before transmitting. All stations may not be able to hear all other stations on the net, especially during simplex operations. Try to determine that the frequency is clear before transmitting.

E. Pay as close attention as possible to the net operations. Often, information passed to the NCS from another station will be of importance to you. If you copy this information direct, it can save the time necessary to repeat it.

F. When you are recognized by Net Control, state your business as quickly and clearly as possible. Avoid unnecessary verbiage.

1. If you have traffic, state the nature and destination of your traffic, but do not launch into your message until you are advised that the NCS is ready to receive it. You may be given instructions to move to another frequency or to transmit your traffic direct to another station. So, wait for instructions

2. If you have a question or information for the NCS, use good judgment and follow the patterns that have been established for the particular operation in progress. If you have a lengthy communication, you should so advise the NCS and wait for instruction.

G. Questions may arise for many reasons. If you do not understand something clearly, ask the appropriate questions to be sure that you can fulfill what is needed of you. However, questioning the procedures set by Net Control is generally not appropriate. Remember, the NCS usually has a better view of the overall picture and has set up the net to meet the needs of the operation as soon from a centralized vantage point. On the other hand, from your vantage point in the field, you may be able to directly observe a changing situation that could affect the entire operation. If you feel a suggestion is in order, by all means offer it, but as a suggestion only. Under no circumstances argue with or criticize Net Control during an operation. There will be plenty of time for that after the operation is over, if you still feel that criticism is warranted.

New Members Column

Kathy, KB7DNK

We have two new members this month: Jon Klein, KA7ICV and Jim Yohe, KB7EFE.

Jon has had his license since 1980, but said he has been interested in Ham Radio since High School. Right now, he holds a Technician license. Jon has lived in Oregon all his life and has belonged to several different radio clubs in this area. He is currently on two-meters and monitors several repeaters. He is the Wednesday Night Net Control for the Portland Area ARES District 1 Net (147.32). Jon is a retired railroad man. One of his hobbies is stamp collecting which he enjoys quite a bit. Jon's favorite thing about Ham Radio is the Public Service events.

Jim obtained his license in 1976. He works at Tektronics with printed circuit boards. He has a daughter, 17 years and a son, 7 years. Some of his hobbies include computer programming and camping. Jon says the thing he enjoys the most about Ham Radio is the DX work.

Please say "Hello" to these new members at our next club meeting and make them feel welcome.

Yard Sale Reminder

YARD SALE REMINDER By Marvel, KA7TZZT
Keep collecting and saving all those unwanted, unused but good, clean items for our Yard Sale. Dates are July 29, 30 and 31. Location - Pat and Stan's yard, 18955 SW Blanton, Aloha. Times to be announced. Items that sell well are:

Household items	Antiques
Tools/garden supplies	Toys/games
Childrens clothing	Radio gear
Craft supplies	Furniture
Dishes Toys/games	Military items

Whatever you are tired of moving from closet to basement, bring along.

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Articles may be submitted to: Lorna Cambell, KA7RFD, Editor, 9890 S.W. Inglewood, Portland, Oregon 97225.

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Dues for OTVARC membership are \$10.00 per year and are prorated quarterly. There is a one-time initiation fee of \$2.00. Meetings are held on the second Wednesday of each month at the Beaverton Elks Lodge, 3500 S.W. 104th Avenue and start at 7PM. A buffet dinner is served at 6:15PM.

All correspondence other than for this newsletter should be sent to: Oregon Tualatin Valley Amateur Radio Club, Post Office Box 25545, Portland, Oregon 97225-0545.

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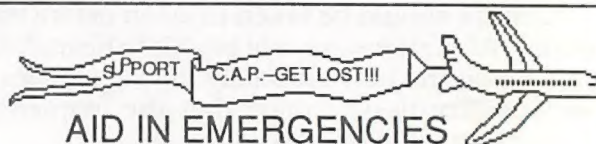
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STAN WEINSTEIN

ATTORNEY AT LAW

Suite 310 Board Of Trade Building
310 S.W. Fourth Avenue
Portland, Oregon 97204



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